

TESTIMONY OF WILLIAM DAVIS
SUBMITTED ON BEHALF OF THE
AMERICAN ANTHROPOLOGICAL ASSOCIATION
BEFORE THE
APPROPRIATIONS SUBCOMMITTEE ON COMMERCE,
JUSTICE, SCIENCE AND RELATED AGENCIES
U.S. HOUSE OF REPRESENTATIVES
FISCAL YEAR 2011
IN SUPPORT OF THE
NATIONAL SCIENCE FOUNDATION

April 14, 2010

Chairman Mollohan and Members of the Subcommittee:

The American Anthropological Association (AAA) appreciates the opportunity to present this written testimony to the Subcommittee in support of the National Science Foundation (NSF). We are pleased to support the Administration's recommended appropriation of \$7.4 billion for in FY 2011. This represents an 8%, or an almost \$552 million increase in funding over the FY 2010 level. The AAA is also pleased with the Administration's investment in the NSF, as the agency's budget has increased by over two billion in the last ten years.

We thank you, Mr. Chairman and members of the Subcommittee for the strong support you have provided to NSF over the years. We are proud to consider ourselves partners in advocating for a priority federal program such as the NSF and strongly believe that this country's investment in science and technology will reap benefits for years to come. It is a widely-recognized fact that many of our nations' innovations in science and technology owe their beginnings to NSF, where financial support for basic research has been wildly successful. Indeed, many private sector companies, unable to support basic research, rely on NSF to fund research that many times results in new discoveries. We believe that a strong federal investment in NSF provides future benefits that far outweigh dollars expended. We are also pleased that many of the President's stated research priorities, such as energy independence and climate change, are also of critical importance to the NSF, and robust funding in these areas is certainly welcome.

NSF plays a unique and critical role in advancing basic scientific research, nurturing future scientists, cultivating collaboration around the world, and enhancing scientific knowledge and skills for students of all ages and the public. NSF provides a model for fostering scientific creativity and discovery, and the products of that creativity and discovery have contributed to the international leadership of the United States in scientific and engineering research and education. Even in times of fiscal crisis and budgetary constraints, the United States needs to invest strongly in science and technology to maintain our competitive edge internationally.

We support NSF's movement in FY 2011 to use increased funding to follow its stated goals

in its Strategic Plan: to advance discovery, innovation and education beyond the frontiers of current knowledge and to empower future generations in science and engineering. Like the NSF, the discipline of anthropology is also committed to innovation, education and discovery – the agency has a rich history of funding AAA member projects.

We wish to call attention to four anthropology projects, recently and currently funded by NSF, that exemplify the positive benefits that result from a federal investment in the agency. The projects represent cultural anthropology, archaeology, linguistics, and biological or physical anthropology. The majority of the projects are interdisciplinary in nature and US or international in scope. In all cases, the projects' outcomes or current findings are significant in re-shaping our understanding of human history and human behavior, with some project results re-configuring the way we characterize human factors in policy-related issues.

1. With NSF funding, Peter Ellison of Harvard University has been able to investigate contemporary questions in human biology, specifically reproductive maturation. Most populations in the world show evidence of a shift over time toward earlier reproductive maturation with economic development. Early maturation is linked to the risk of many chronic diseases such as diabetes and reproductive cancers. The mechanisms that drive this change are unclear, and suggestions that the trend may be continuing in the contemporary U.S. have caused some alarm. This project is advancing our understanding of this trend and illuminates how prenatal conditions influence the pace and trajectory of pubertal maturation.
2. With NSF funding, John Borneman of Princeton University continued his longitudinal ethnographic research on the uses of incarceration and therapy to treat perpetrators of specific classes of criminal offenses. A central research focus of his is how experts assess motivations and justify decisions regarding penalization and therapy. As public awareness and the law address a wider variety of social problems, it is important to understand the underlying logic and consequences of penalization, therapy, and rehabilitation. Such research is crucial for informing public policy.
3. With NSF funding, Kent Lightfoot of the University of California-Berkeley is leading an interdisciplinary team of scholars to develop an integrated eco-archaeological approach for examining the degree to which California Indians employed landscape management practices, particularly prescribed burning, to increase the productivity and diversity of economic plants and animals in local regions. A diverse team of researchers will apply this approach to a "State Cultural Preserve" in Central California where they will evaluate a pyrodiversity collected model which hypothesizes that hunter-gatherers enhanced and created biodiversity by instigating fire regimes characterized by frequent, small, low severity surface burns. His team is also evaluating how indigenous landscape practices can help decrease fuel loads, property loss, and budget deficits by reducing the frequency of devastating firestorms in California (more than 4000 wildfires in 2008).
4. With NSF funding, John Haviland of the University of California-San Diego has researched how language is created without direct "linguistic input" through a study

of the development of Zinacantec Family Homesign in Chiapas, Mexico. Opportunities for research on languages of the deaf as they evolve in “natural” conditions are rare. Most sign language research works with languages which are either well-established or which have come to the attention of researchers only after the first generation of speakers has disappeared. The research probes the processes of creation, innovation, and change at the beginning of a language’s evolution.

The SBE program, which the Administration has slated for a 5% increase, is of vital importance to the anthropological community. As anthropologists study humankind in all its aspects – archeological, biological, ethnological and linguistics, SBE funds research in human development and social dynamics, as well as STEM learning and education. Last year, SBE awarded hundreds of millions of dollars, providing well over one-half of Federal funding for basic research at SBE institutions, and is, in many cases, the main source of Federal research support. At a time when such support from non-Federal partners is dwindling, SBE is the lifeline through which are members are able to continue their work

Mr. Chairman, we are pleased to support the NSF budget request as the agency has successfully encouraged research – including interdisciplinary research efforts. We believe a strong, federal investment in NSF results in a more robust US economy and ensures the Nation's leadership role in basic scientific research, science education, and scientific breakthroughs.